

Solution

Databases: Normalisation:

1NF

Repair this:

Customer ID	Name	Phone
111	Fred Smith	4566 3456
222	Mary Jones	4567 8900
333	Tim Blogs	3254 5676

Customer-ID	Fname S_name	Phone

Repair this:

Product ID	Colour	Weight
A345	Red	4kg
A568	Blue	300g
B695	White	1.5kg

Product ID	Colour	weight(g)
		4000
		300
		1500

Repair this:

Album	Track	Length
Monster	1	3:23
Monster	2	4:12
Collapse into Now	1	4:01

Album	Track	length(seconds)
		203
		252
		241

Repair this:

Customer ID	Address
111	66 Lake Rd, Mentone, 3198
222	2/45 Richmond Lane, Richmond, 3121
333	135 Spring St, Melbourne, 3000

customer ID	Street	Suburb	Postcode
	66 Lake Rd	Mentone	3198.

Repair this:

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CUSTOMER

Customer ID	Name	Phone
111	Fred Smith	4566 3456
222	Mary Jones	4567 8900 (BH) 3456 2314 (AH)
333	Tim Blogs	3254 5676 0402 697 495

1st Attempt 1NF

Customer ID	Fname	Surname	Phone 1	Phone 2
111	Fred	Smith	4566 3456	
222	Mary	Jones	4567 8900	3456 2314

Problem?

- Querying the table: Have to search more than 1 field
- Can't enforce validation rules to prevent duplicate data.
- Waste of space.

2nd Attempt 2NF

Customer Name Table		
Customer ID	Fname	Surname
111	Fred	Smith
222	Mary	Jones
333	Tim	Blogs

Customer Phone Table	
Customer ID	Phone
111	4566 3456
222	4567 8900
222	3456 2314
333	3254 5676
333	0402 697 495